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OROPOGON LOXENSIS AND ITS NORTH AMERICAN DISTRIBUTION

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In a paper by the writer on the American Species of *Alectoria* (Mycologia 3: 149, 1911), *Oropogon loxensis* (Fée) Th. Fries was excluded "on the ground of its distinctive spore differences," and it was stated that the plant would be treated later in a special paper. Material of this species is confined to the larger herbaria, and is not abundant even in such collections. During last winter I have had the opportunity of studying the material in the Museum d'histoire naturelle in Paris, through the kindness of Professor Mangin and Monsieur Hariot. This material was determined by Nylander.

The genus *Oropogon* was proposed for this species by Th. Fries in 1861. It was not recognized by Tuckerman (Gen. Lich. 14: 1872) as he argued that a parallel dissimilarity of spore color

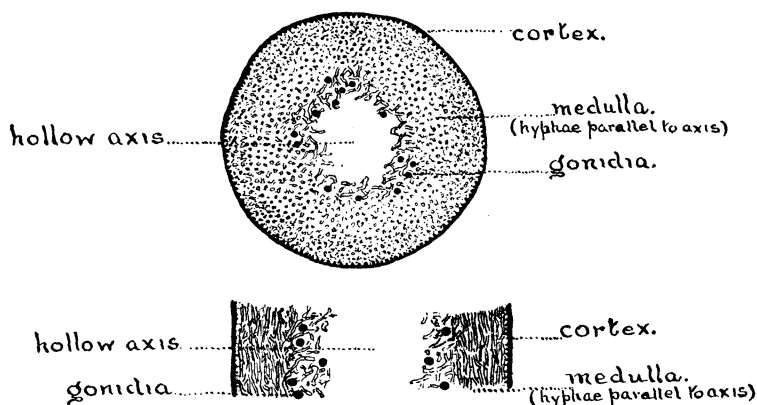


FIG. 1. Structure of Thallus of *Oropogon loxensis*.

and cell structure occurred unnoticed in other genera (*Acolium*, *Calcium*). Dr. Zahlbruckner (Nat. Pflanz. 220. 1907) recognizes, however, the genus not only on account of its muriform spores, but on account of its single-spored asci. Stizenberg

adopted the middle course and considered *Oropogon* as a subgenus. In my *Classification de la Famille des Usneaceae l'Amerique du Nord*, Paris, 1912, I followed the latter author, recognizing *Oropogon* as a section. After further study of spore characters and their phylogenetic importance (Hue, *Bull. Soc. Bot. France* 58: 1911) I am inclined to give to the diverse types of spore septation generic rank, as I did in the first instance and in accord with Dr. Zahlbruckner's view.

OROPOGON LOXENSIS (Fée) Th. Fries

Type: not indicated; there is a specimen in the Museum at Paris which was collected by Bonpland and compared with the type by Nylander according to a note on the label, though the location of the type is not mentioned. Professor Dr. H. Kniep, of the Institut at Strassburg, kindly sent me the specimen here figured, which is taken for the type. The label, however, is the same as those in the Paris Museum collected by Lechler probably in 1854, and not in 1824. The specimen is decidedly atypical, and resembles more closely the boreal *Coelocaulon divergens* as stated below. Fée was a professor at Strassburg, but the type is probably in Brazil, where, however, I have been unable to locate it, although an attempt was made to do so through Dr. Neves Armond, of the Museo Nacional do Rio de Janeiro.

Original description: "(filamentis) tereti, laeviusculo, cinereo-fusco, ramosissimo, subintricato, prostato, ramulis capillaceis, tenuissimis, ultimis bifidis," . . . "(scutellis) terminalibus." Fée, *Essai sur les Crypt.* 137. 1824.

FIGURES: Fée, l. c. *pl.* 31, *f.* 7, supp. 134, 1837; et Nyl. *Synop. Lich.* *pl.* 8, *f.* 16; Zukal, *Morph. und biol. Untersuch. Flecht.*, Sitz. Kais. Akad. Wissens. Wien. *pl.* 2, *f.* 1. 1895; March. *Enum. Meth. Mycoph.*, Soc. d'et. Sci. 16: *f.* H. 1896.

SYNONYMY: *Cornicularia loxensis* Fée, l. c.

Alectoria loxensis Nyl. *Synop. Lich.* 278. 1858-60.

Atestia loxensis Trevis, *Flora* 50. 1861.

Oropogon loxensis Th. Fries, *Gen. Heter.* 49. 1861.

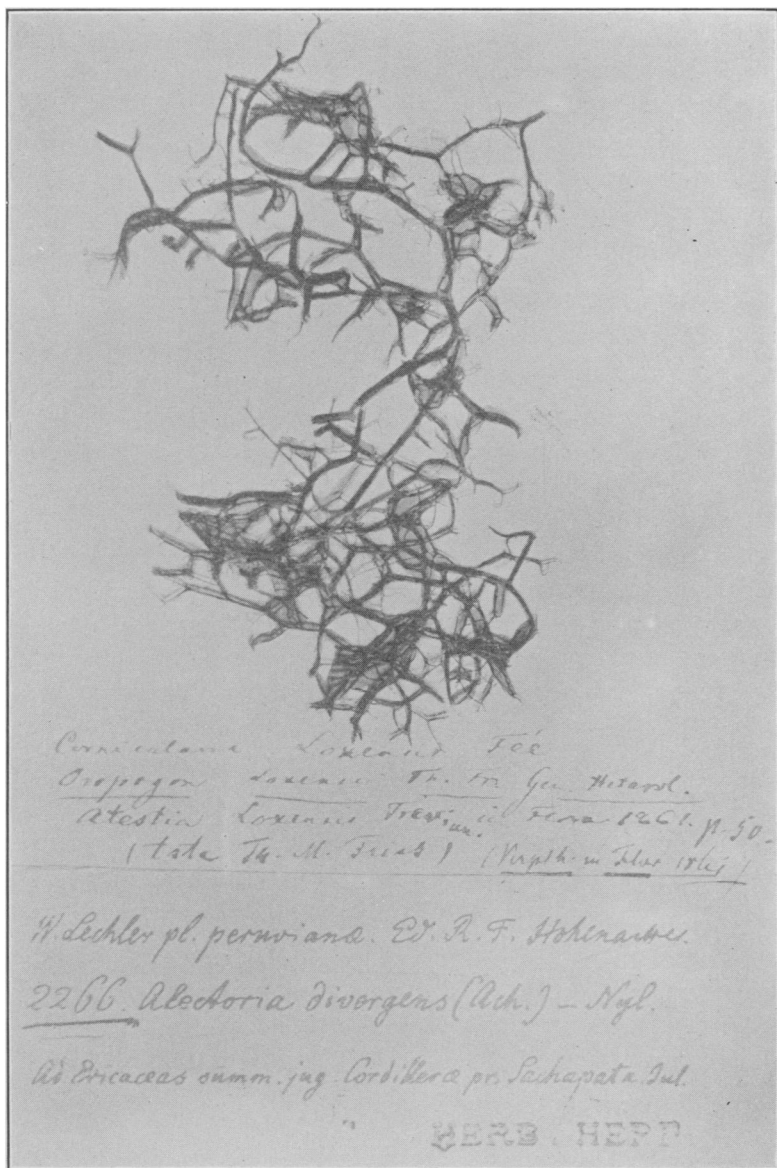


FIG. 2. Specimen of *Oropogon loxensis* in the Botanisches Institut, Strassburg; perhaps the type.

DIAGNOSIS: *Thallus* caespitose or prostrate, brown, subrigid, branches nitidous, dichotomous. Spore 1, muriform.

DESCRIPTION: typical: *Thallus* caespitose or prostrate, filamentous, slender, subrigid, brown to light brown, commonly blackening; branches terete to subterete; *cortex* glabrous or nitidous, occasionally rimulose; *primary branches* dichotomous, flexuous, entangled (max. length 15 cm.); *secondary branches* dichotomous, flexuous; *fibrils* short, furcate. *Apothecia* lateral, common, small (max. diameter 2 mm.), concave, convex, or applanate, innate-marginate, disk concolorous, chestnut or dark brown. *Spores* 55-134 \times 28-48 μ .

SUBSTRATA: The plant is reported to grow both on the ground and on trees; but the collector's labels that I have examined are without data in regard to the substratum (see Hue, Lich. Ext. Europ. 95. 1901).

GEOGRAPHICAL DISTRIBUTION: Confined within our area to the alpine regions of Mexico. It has been collected on Mt. Orizaba, and at Neveria and Alvarez. Outside of Mexico it has been collected in Japan, China and Java, in Peru and Colombia, South America, and on the island of Jamaica (Merrill, Bryl. 14: 37. 1911).

OBSERVATIONS: A subspecies was proposed by Nylander, *i. e.*, *Al. Loxensis* var. *atroalbicans* (Lich. Novo Gran. Prod., Act. Soc. Sci. Fenn. 7: 20. 1863). It is simply a color form described as follows: "thallo proparte nigricante et pro maxime parte albicante." The type No. 2746, collected by Lindig at Choachi, Colombia, is now in the herbarium of the Museum d'histoire naturelle, Paris.

SPECIMENS EXAMINED

Sprague Herbarium, Boston Society of Natural History.

MEXICO: Mt. Orizaba, *Fr. Muller*.

U. S. National Herbarium, Washington.

MEXICO: Alvarez, San Luis Potosi, 8,999 ft., Sept. 1902, *Ed. Palmer*.

British Museum of Natural History, London.

COLOMBIA: Bogota.

Museum d'histoire naturelle, Paris.

L'AMERIQUE EQUATORIALE, M. A. Bonpland.

PERU: 1839-40, *M. Cl. Gay*; Carabaya, Juin-Juillet, 1847, *M. H. Alg. Weddell*; Sachapata, *W. Lechler*, 2 specimens cited by Nylander, and M. l'Abbe Hue.

MEXICO: Mt. Orizaba, 1858, *Fr. Muller*.

COLOMBIA, 3000 m., 1860, *Lindig*.

Botanisches Institut, Strassburg.

PERU: Sachapata, *W. Lechler*.

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